

#### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

### (19) World Intellectual Property Organization

International Bureau



## . NEGOT ANTONIO NEGOTA DE CONTRACTO NEGOTA A CONTRACTO NEGOTA A CONTRACTO NEGOTA A CONTRACTO NEGOTA A CONTRACT

#### (43) International Publication Date 15 April 2004 (15.04.2004)

#### PCT

# (10) International Publication Number WO 2004/031510 A3

(51) International Patent Classification<sup>7</sup>:

E02D 17/04

(21) International Application Number:

PCT/KR2003/002063

(22) International Filing Date: 7 October 2003 (07.10.2003)

(25) Filing Language:

Korean

(26) Publication Language:

English

(30) Priority Data:

10-2002-0060901 7 10-2002-0067618

7 October 2002 (07.10.2002) KR

2 November 2002 (02.11.2002) KR

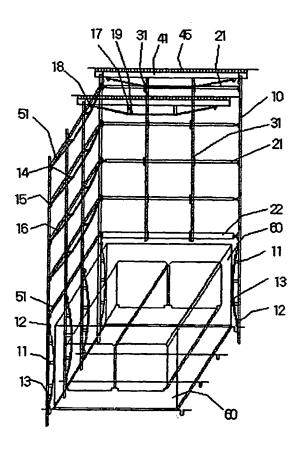
(71) Applicant and

(72) Inventor: HAN, Man-Yop [KR/KR]; 304-1302 SK APT., Ingye-dong, Paldal-gu, Suwon-si, 442-070 Gyeonggi-do (KR).

- (74) Agent: HAN YANG PATENT FIRM; 10th Floor, Dacom Building, 706-1 Yeoksam-Dong, Gangnam-Gu, 135-987 Seoul (KR).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: INNOVATIVE PRESTRESSED SCAFFOLDING SYSTEM



(57) Abstract: Disclosed herein is a support system that is temporarily placed below ground for preventing collapse of the excavated ground when a subway is constructed or a basement of a building is built. The excavated ground or load is supported by means of supporting members, the supporting members being pre-stressed by means of tensioning members and tendon support members serving to support the tensioning members. Consequently, the number of struts for supporting vertical piles and wales is considerably reduced so that obstacles in the underground space when it is excavated are removed. Furthermore, the constructional efficiency of the underground space is greatly improved, and the cost of construction is sharply reduced.